

BIESEMEYER

®

T-Square® Universal Home Shop Fence System



INSTRUCTION MANUAL



PART NO. 1349943
DATED 06-01-01

INTRODUCTION

The models 78-930, 28" capacity; 78-931, 40" capacity; and 78-935, 52" capacity Universal T-Square® Fence Systems include the fence assembly, front rail, rear rail and front guide tube along with the necessary mounting hardware for assembling the fence system to many different types and styles of table saws. An accessory right extension table, must be ordered separately or a similar extension table must be constructed by following the instructions in this manual. The accessory leg kit, model 78-951, used to support the extension table, must also be ordered separately. **IMPORTANT: The Biesemeyer® T-Square® Home Shop Fence System is designed to be used ONLY with a supporting extension table and leg kit.**

UNPACKING

Carefully unpack the Biesemeyer® T-Square® Fence System from the shipping cartons. Figures 2 and 3 illustrate all the items supplied with the Fence system.

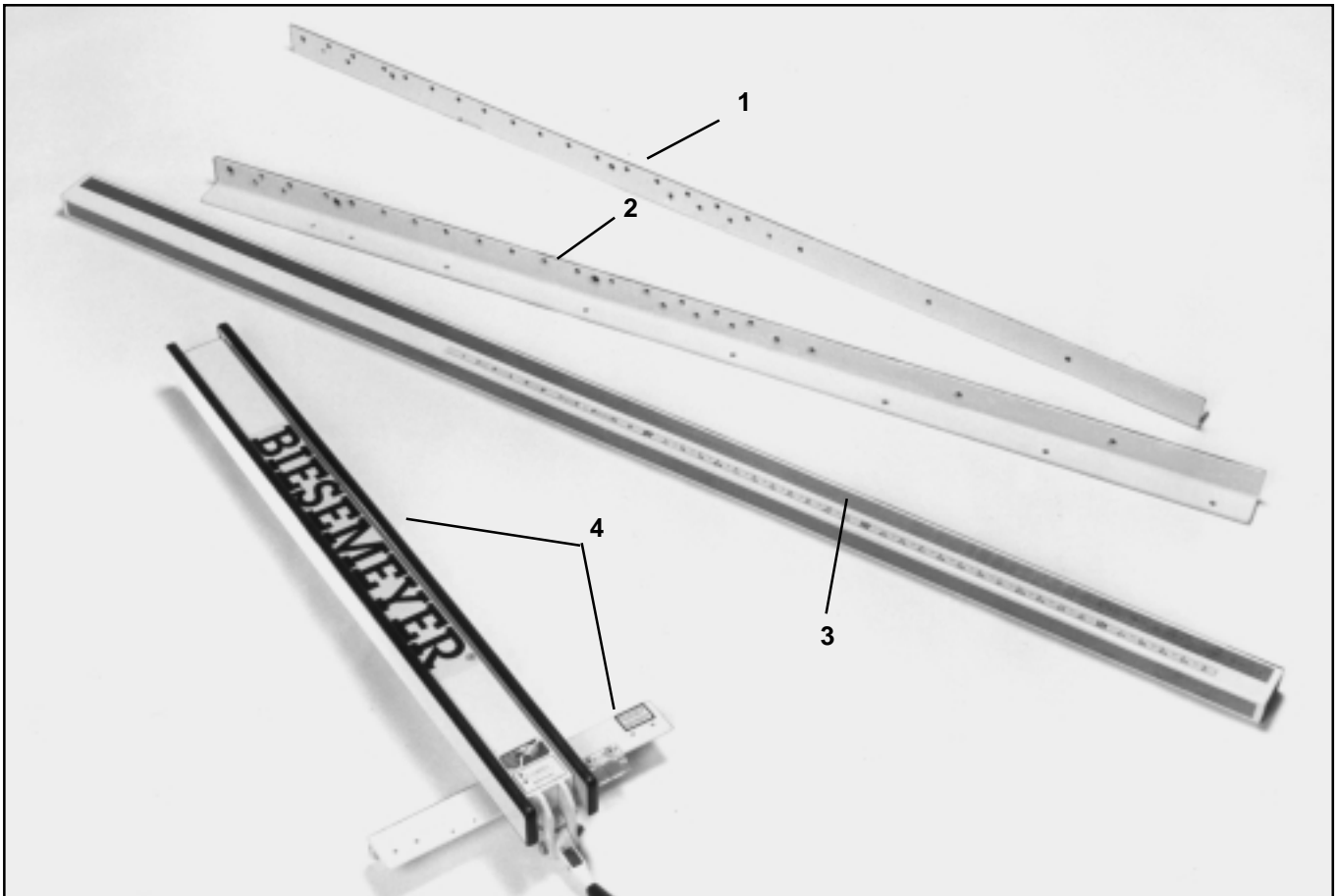


Fig. 2

1 - Rear Rail

2 - Front Rail

3 - Guide Tube

4 - T-Square® Fence Assembly

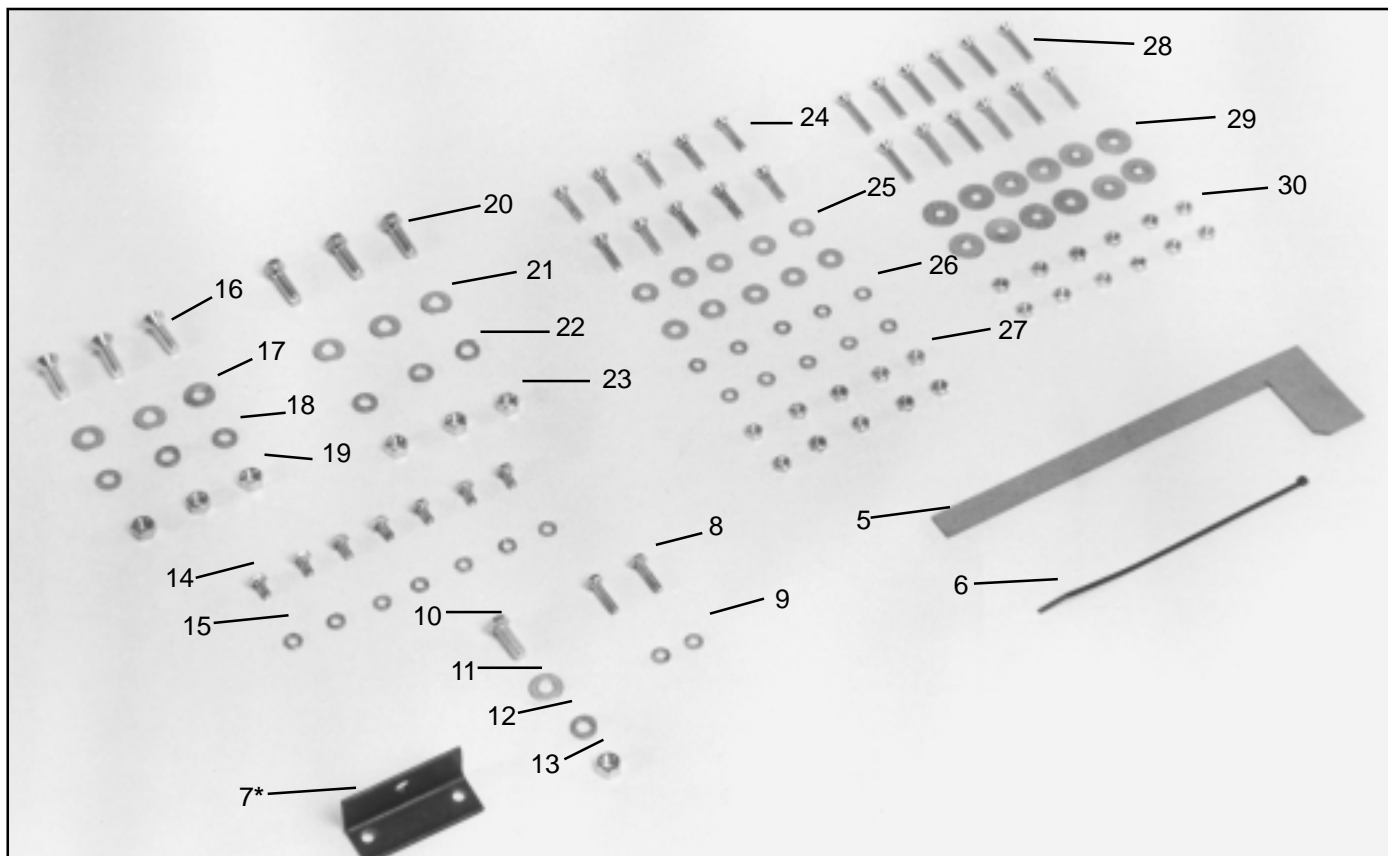


Fig. 3

5 – Template for aligning front rail to saw table

6 – Cable Strap

7 -- *Switch bracket for use with Delta 10" Contractor's Saws and Delta 10" Contractor's Saws II with plastic switch actuator. **See note below.**

For Assembling Switch Bracket to Guide tube on Delta 10" Contractor's Saws and Delta 10" Contractor's Saws II.

8 – 1/4-20 x 3/4" long hex head screw (2)

9 – 1/4" lock washer (2)

For Assembling Switch to Switch Bracket on Delta 10" Contractor's Saws and Delta 10" Contractor's Saws II

10 – 3/8-16 x 1" long hex screw

11 – 7/8" O.D. - 3/8 I.D. flat washer

12 – 3/8" lock washer

13 - 3/8-16 hex nut

For Fastening Guide Tube to Front Rail

14 – 1/4-20 x 1/2" long hex head screw (7)

15 – 1/4" lockwasher (7)

For Fastening Front Rail to Delta Saw Tables and Sheet Metal Extension Wing if Applicable

16 – 3/8-16 x 1-1/4" long flat head screw (3)

17 – 7/8" O.D. - 3/8" I.D. flat washer (3)

18 – 3/8" lockwasher (3)

19 – 3/8-16 hex nut

For Fastening Rear Rail to Delta Saw Table and Sheet Metal Wing if Applicable

20 – 3/8-24 x 1-1/2" hex head screw (3)

21 – 7/8" I.D. - 3/8" I.D. flat washer (3)

22 – 3/8" lockwasher (3)

23 – 3/8-24 hex nut (3)

For Fastening Front and Rear Rails to Saw Table and Extension Wings on Saws other than Delta

24 – 1/4-20 x 1-1/4" long hex head screw (10)

25 – Flat washer (10)

26 – 1/4" lockwasher (10)

27 – 1/4-20 hex nut (10)

For Fastening Front and Rear Rails to Right Extension Table

28 – 1/4-20 x 1-1/2" long flat head screw (12)

29 – Flat washer (12)

30 – 1/4-20 hex nut (12)

***NOTE: Current Delta saws no longer utilize the switch adapter bracket shown. If you are installing this system on an older Delta saw that has the on/off switch shown in this manual, Please call Biesemeyer Manufacturing Customer Service Department at 1-800-782-1831 to have a bracket sent to you at no charge.**

If you purchased the accessory right extension table, carefully unpack the extension table from the shipping container. Figure 4 illustrates the accessory right extension table removed from the container. **NOTE:** If you did not purchase the accessory right extension table for use with your T-Square® fence, or if your saw has a table depth other than 27", refer to the section of this manual titled "**CONSTRUCTING EXTENSION TABLE**" for information on constructing a right extension table.

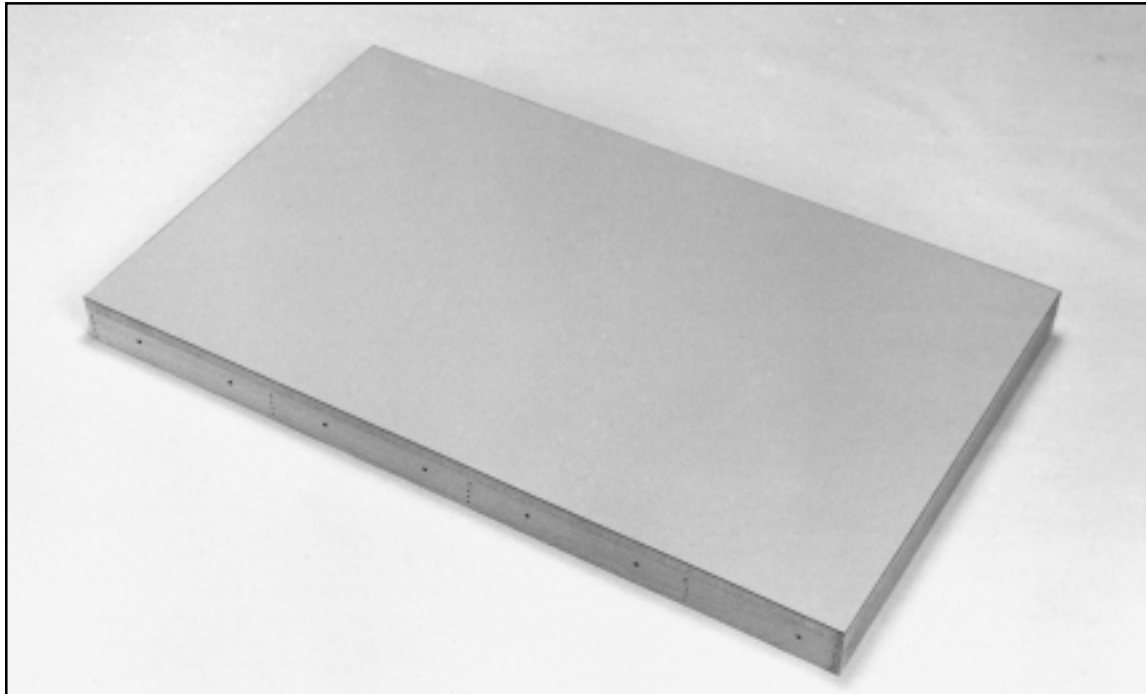


Fig. 4

If you purchased the accessory leg kit (model 78-951) for use with the right extension table, Fig. 5 illustrates the legs and all loose items supplied with this accessory.

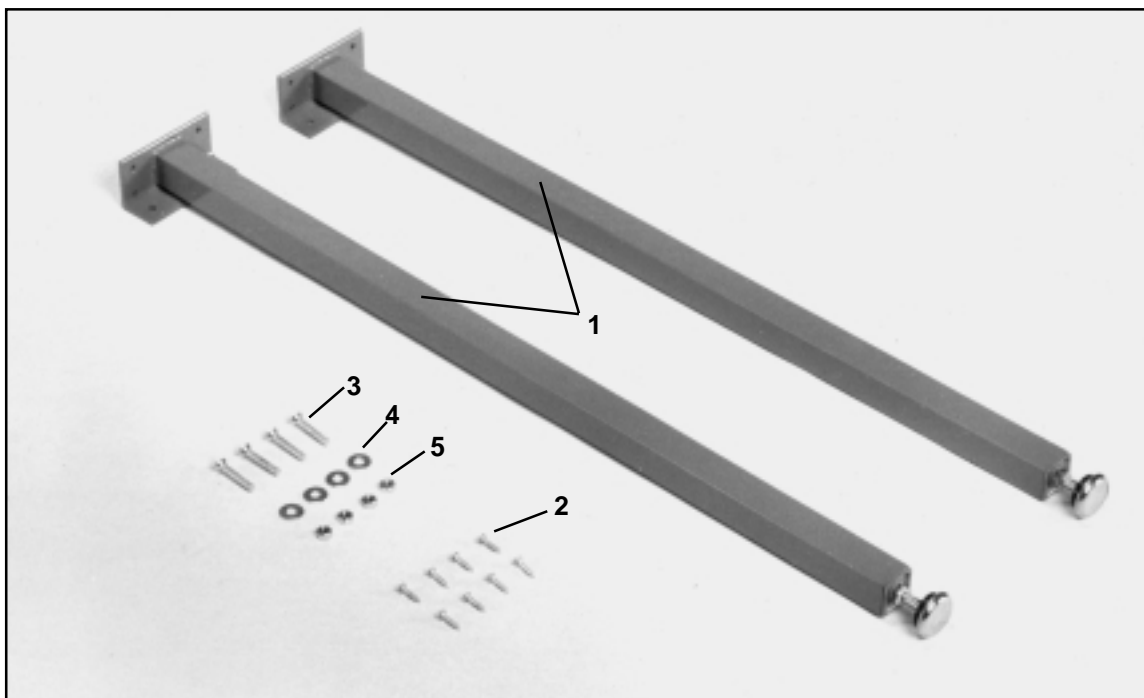


Fig. 5

- 1 - Leg (2)
- 2 - 5/8" long wood screws #8 (8)
- 3 - 1/4-20 X 1-1/2" long flat head Phillips screw (4)

- 4 - 1/4" flat washer (4)
- 5 - 1/4-20 hex nut (4)

ASSEMBLY INSTRUCTIONS

When mounting the T-Square® Fence System to table saws that have been equipped with original equipment fence, guide rails and open grate or stamped steel extension wings, remove the fence, front and rear guide rails and right extension wing from the saw and assemble the T-Square® Fence as follows:

ASSEMBLING FRONT AND REAR RAILS

1. DISCONNECT THE SAW FROM THE POWER SOURCE

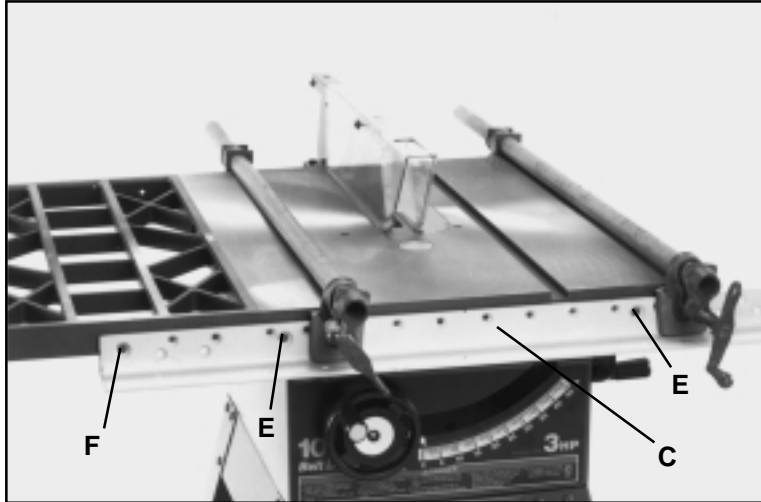


Fig. 6

FOR DELTA SAWS ONLY

(Except Models 34-670, 36-380 and 36-600)

2. Align the two holes (E) Fig. 6, in the front rail (C) with the two through holes in the saw table and fasten the rail (C) to the table saw using the two 3/8-16 x 1-1/4" long flat head screws, flat washers, lock washers and hex nuts supplied. Do not completely tighten the mounting hardware at this time. It is not necessary to use clamps to hold the front rail to the saw table. On Delta saws that are equipped with a sheet metal left extension wing, fasten the front rail (C) to the extension wing using the remaining 3/8-16 x 1-1/4" long flat head screw, lock washer and hex nut supplied through hole (F) in the front rail

NOTE: On Contractor's saws made prior to 1988, the two mounting holes in the front edge of the saw were threaded. It is necessary to drill out the threads with a 7/16" drill bit and use the hardware provided as indicated in step 2.

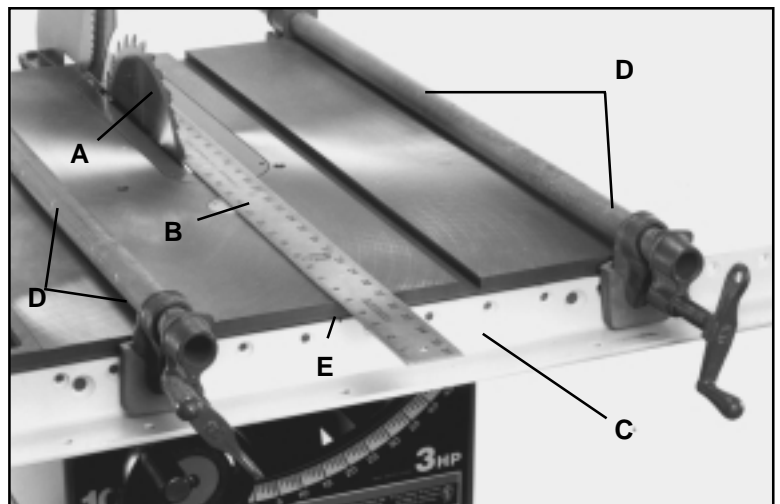


Fig. 7

FOR ALL OTHER TABLE SAWS

(Including Delta Models 34-670, 36-380 and 36-600)

3. Raise saw blade (A) Fig. 7. Place a straight edge (B) against right side of saw blade extending out over front of saw table as shown. Position front rail (C) against front edge of saw table and lightly clamp in place using bar clamps (D). Align the notch (E) in front rail (C) with right side of saw blade (B) as shown, and tighten bar clamps (D).
4. Figure 7 illustrates the front rail (C) clamped to the front edge of the saw table.

FOR ALL SAWS

(Including Delta Models 34-67-, 34-380 and 36-600)

5. Using the template (G) Figures 8 and 9, check and adjust front rail (C) at both sides of the saw table as shown, to make sure rail (C) is level with table surface. **THIS MEASUREMENT IS CRITICAL. IF NECESSARY, ANOTHER PATTERN CAN BE MADE USING THE DIMENSION FOUND IN FIG. 10. IMPORTANT:** Template (G) Figs. 8 and 9, must be on the saw table when checking, not on extension wing.

FOR DELTA TABLE SAWS

(Except Models 34-670, 34-380 and 36-600)

6. When you are certain front rail (C) Figs. 8 and 9, is level with the table surface, securely tighten front rail mounting hardware (D).

FOR ALL OTHER SAWS

(Including Delta Models 34-670, 34-380 and 36-600)

7. When you are certain front rail (C) Figures 8 and 9, is level with table surface, securely tighten bar clamps (D).

8. Check to make certain there is no interference such as casting ribs behind front edge of saw table and drill a minimum of four 1/4" through holes into the saw table using holes in front rail as a template. Fasten front rail (C) Fig. 11, to saw table using the four 1/4-20 x 1-1/4" long flat head screws (H), flat washers, lockwashers and hex nut supplied. Remove bar clamps after front rail is fastened to saw table.

9. Drill an additional through hole in the extension wing using one of the holes in the front as a template and fasten front rail to extension wing using a 1/-20 x 1-1/4" long flat head screw (J) Fig. 11, flat washer, lockwasher and hex nut supplied.

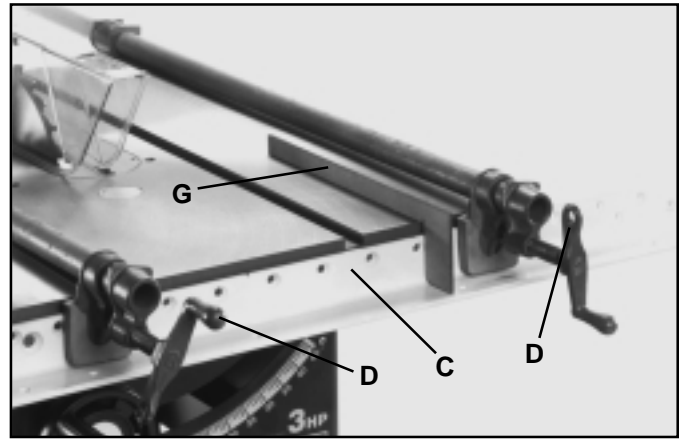


Fig. 8

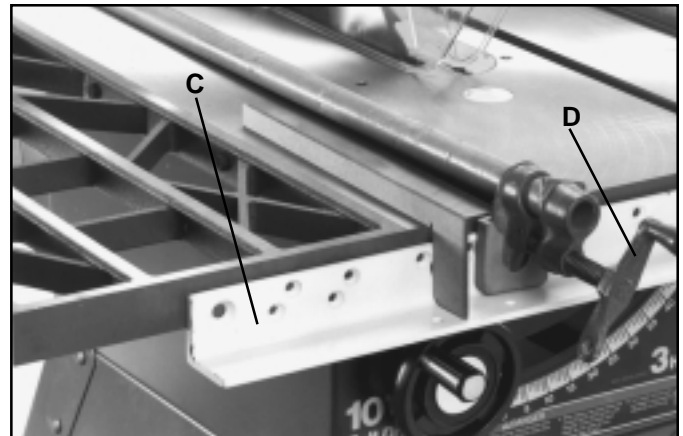


Fig. 9

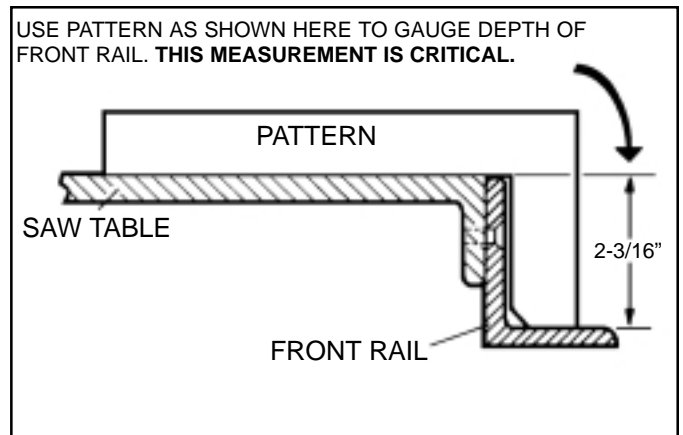


Fig. 10

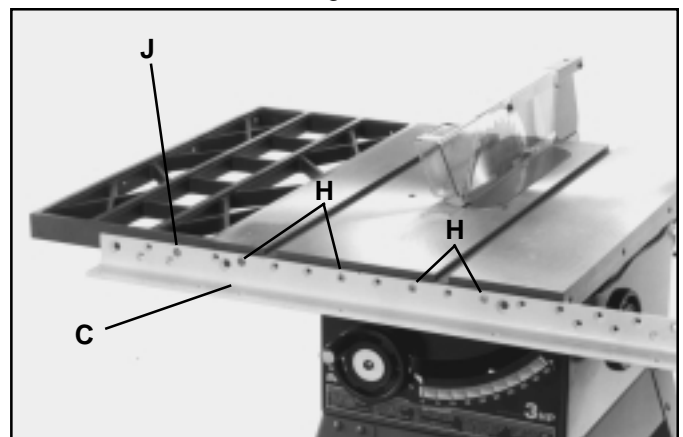


Fig. 11

FOR DELTA TABLE SAWS
(Except Models 34-670, 34-380 and 36-600)

10. Align the two non-countersunk hole (K) Fig. 12, of rear rail (L) with the two holes in rear edge of saw table and fasten rear rail to saw table as follows:

For Delta 10" Tilting Arbor Saws, 10" Contractor's Saws and 10" Contractor's II – Make certain the edge (M) Fig. 12, of the rail is below miter gage slots an equal distance as shown and fasten rear rail (L) to the saw using the two 3/8-24 x 1-1/4" long hex head screws, flat washers, lockwashers and hex nuts supplied.

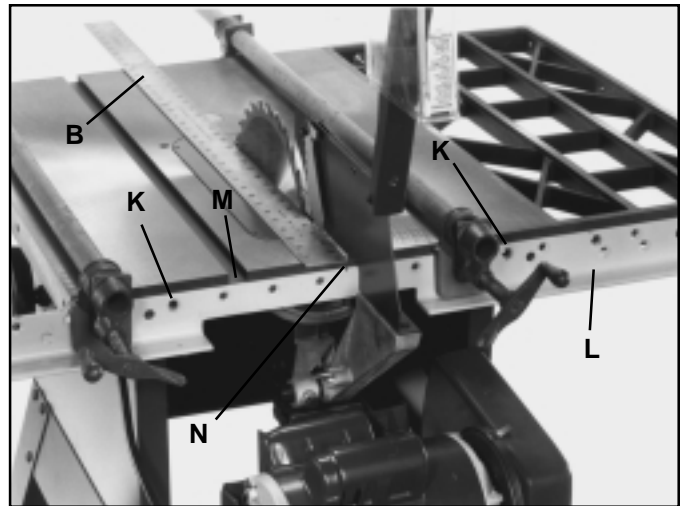


Fig. 12

IMPORTANT: DO NOT USE TEMPLATE SUPPLIED TO LEVEL REAR RAIL.

FOR ALL OTHER TABLE SAWS
(Including Delta Models 34-670, 34-380 and 36-600)

11. Clamp rear rail (L) Fig. 12, to back of saw table using bar clamps, making certain left side of notch (N) in rail is aligned with right side of saw blade as shown, using straight edge (B). Also make sure edge (M) of rear rail is below miter gage slots an equal distance as shown.

IMPORTANT: DO NOT USE TEMPLATE SUPPLIED TO LEVEL REAR RAIL.

12. Check to make certain there is no interference such as casting ribs behind the rear edge of saw table and drill a minimum of two 1/4" through holes through the saw table using the holes in rear rail as a template. Fasten rear rail to saw table using two 1/4-20 x 1-1/4" long flat head screws (H) Fig. 13, flat washers, lockwashers and hex nuts supplied. Drill an additional through hole in the extension wing using one of the holes in the rear rail as a template and fasten rear rail to extension wing using a 1/4-20 x 1-1/4" long flat head screw (J) Fig. 13, flat washer, lockwasher and hex nut supplied. **IMPORTANT:** If there is no room in rear edge of table to drill through holes, it will be necessary to drill #7 holes in table and tap holes using a 1/4-20 tap.

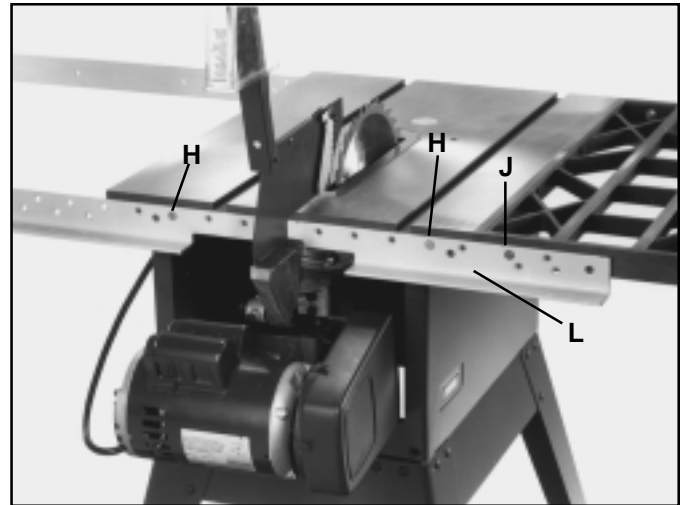


Fig. 13

13. Figure 13 illustrates the bar clamp removed and the rear rail (L) fastened to rear of the saw table and extension wing using the hex head screws (H) and (J).

FOR ALL SAWS

14. After fastening the rear rail to the saw table, tilt saw blade to make certain there is no interference between the guard, splitter and rear rail. If there is, it will be necessary to enlarge the cutout area (P) Fig. 14, in the rear rail.

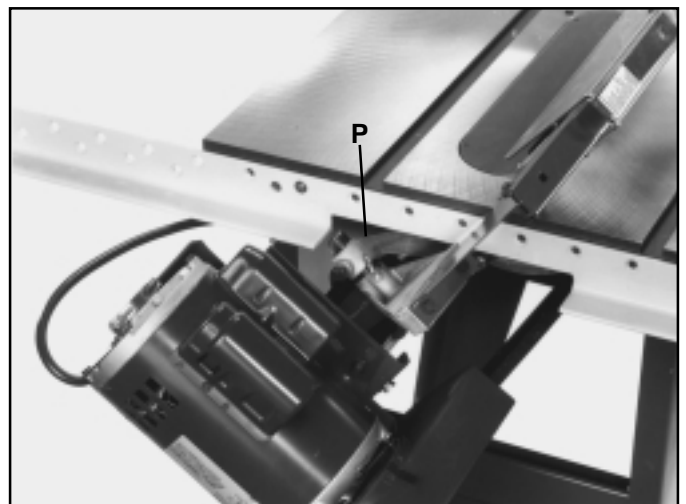


Fig. 14

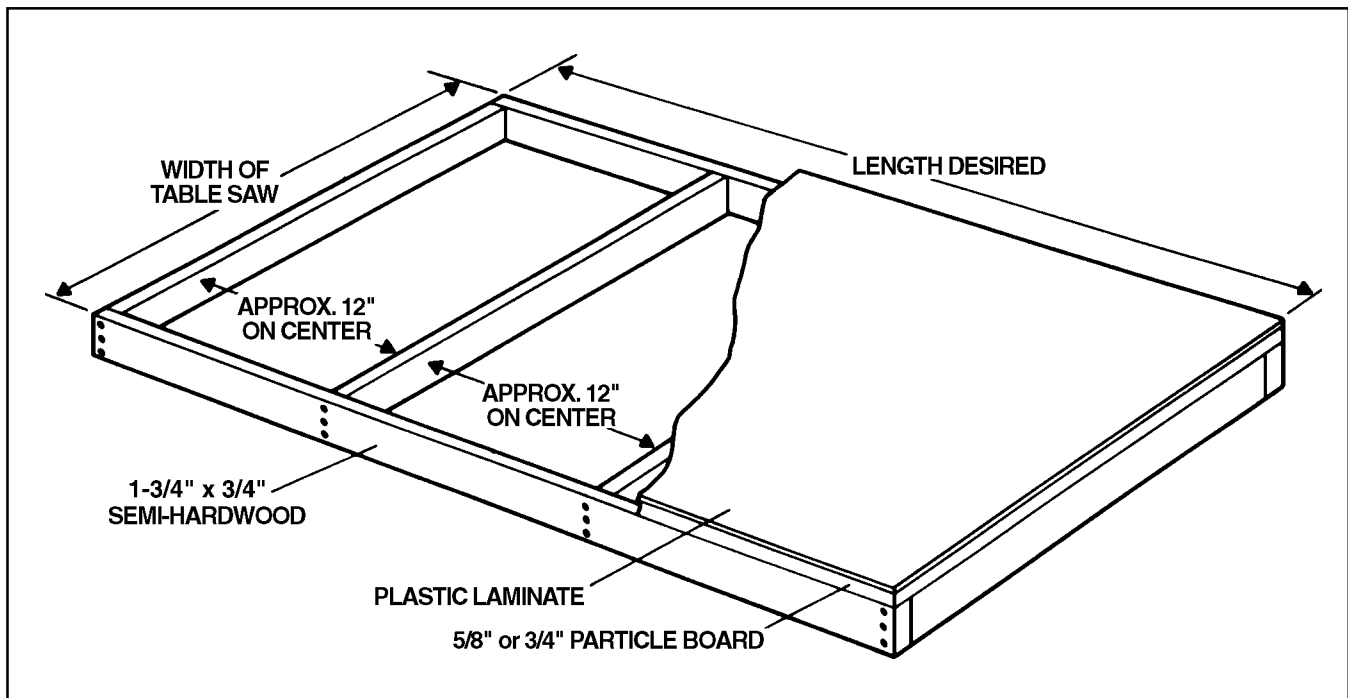


Fig. 15

CONSTRUCTING EXTENSION TABLE

1. If you did not purchase the accessory right extension table for use with your T-Square® Fence, construct an extension table by following the dimensions shown in Fig. 15.

ASSEMBLING ACCESSORY 78-951 LEG KIT TO EXTENSION TABLE

1. Position the two legs (A) Fig. 16, at the two far corners of the inside of one end of the extension table, as shown, and mark the position of the eight holes (B) to be drilled into the bottom of the table and the four holes (D) to be drilled into the frame of the table. **IMPORTANT:** If your saw and fence system will be used with a mobile base underneath the saw and table legs, the position of the legs may have to be changed to fit into the mobile base. Remove the two legs (A) and using a 1/16" drill bit, drill the eight holes 3/8" deep. Using a 1/4" drill bit, drill four through holes through the end piece (C) Fig. 16, of the table.

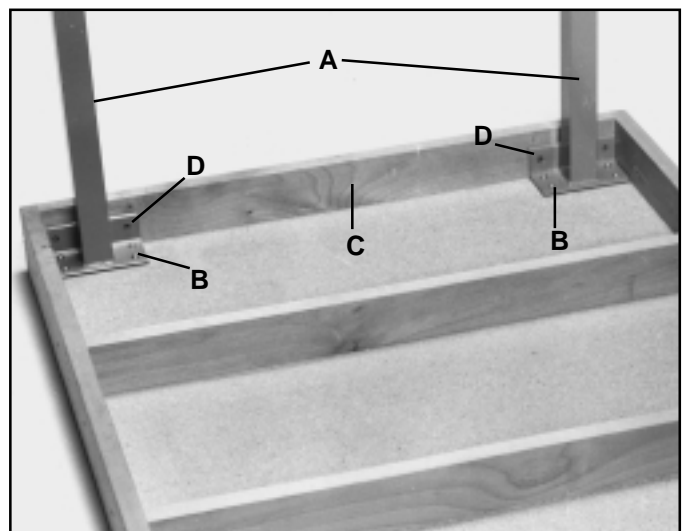


Fig. 16

2. Replace the two legs and fasten to the bottom of the table using the eight 5/8" long wood screws (B) supplied.

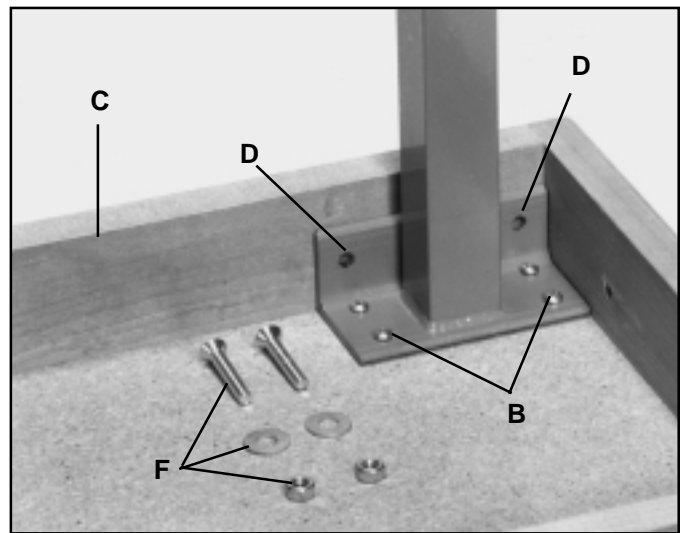


Fig. 17

3. Fasten the leg bracket (E) Fig. 18, to the end piece (C) of the table using the two 1-1/2" long flat head Phillips screws, flat washers and hex nuts (F) Figs. 17 and 18, supplied. Fasten the remaining leg to the extension table in the same manner.

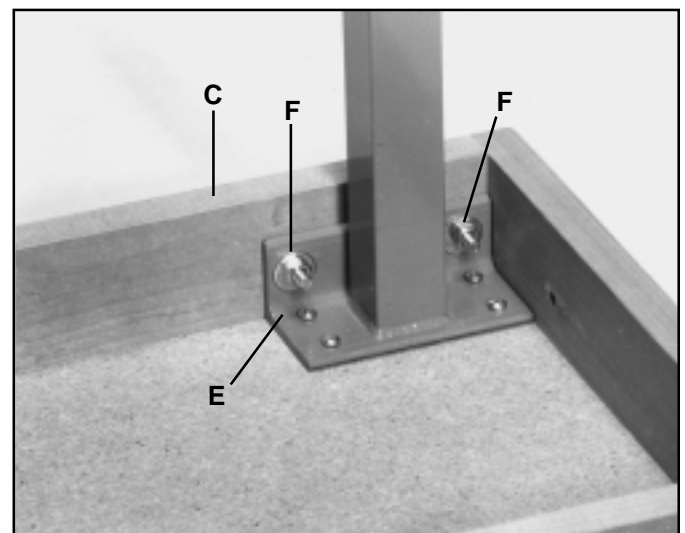


Fig. 18

4. Figure 19 illustrates the two legs (A) assembled to the bottom of the table.

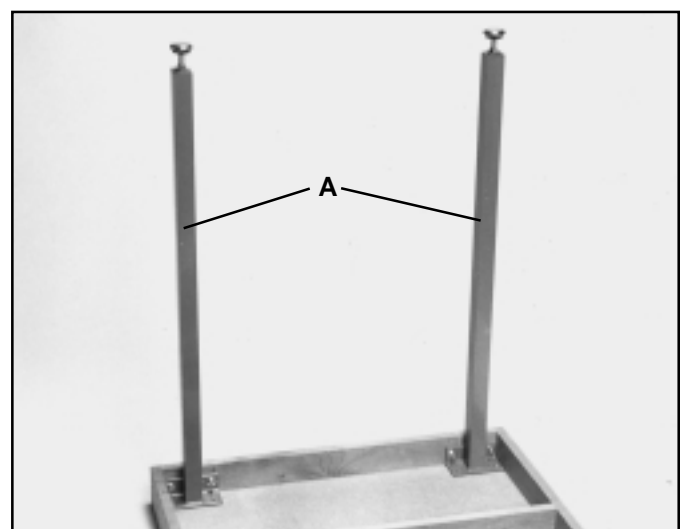


Fig. 19

ASSEMBLING TABLE ASSEMBLY TO FRONT AND REAR RAILS

1. Place table assembly (A) in position between the front and rear rails, as shown in Figs. 20 and 21. Make sure end of table (B) is flush against saw table (C) and using a bar clamp (D) snug up end of rails to hold table in position. Using a straight edge (K) make certain table (A) is in the same plane and level with saw table (C). Lightly tap table (A) up or down and adjust leveling screws in bottom of legs to accomplish this. When you are certain table (A) Figs 20 and 21, is level and in the same plane with saw table (C), tighten bar clamp (D) to hold everything in position. Then drill 1/4" through holes through the front and rear of the extension table using the lower row of holes (E) in the front and rear rails as a template. The number holes to be drilled will depend on the length of extension table.

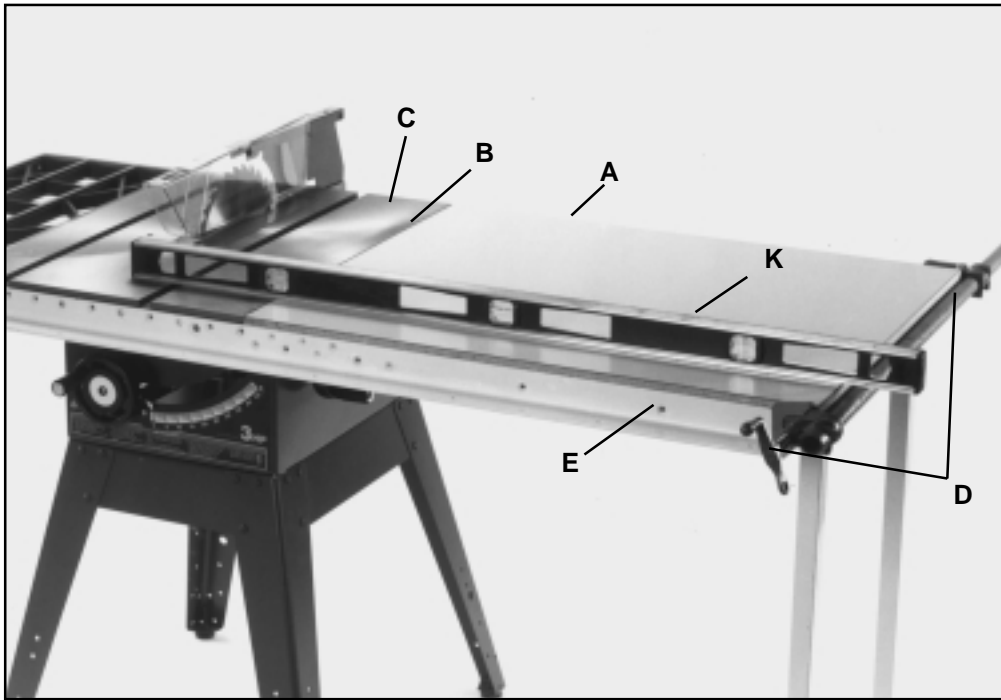


Fig. 20

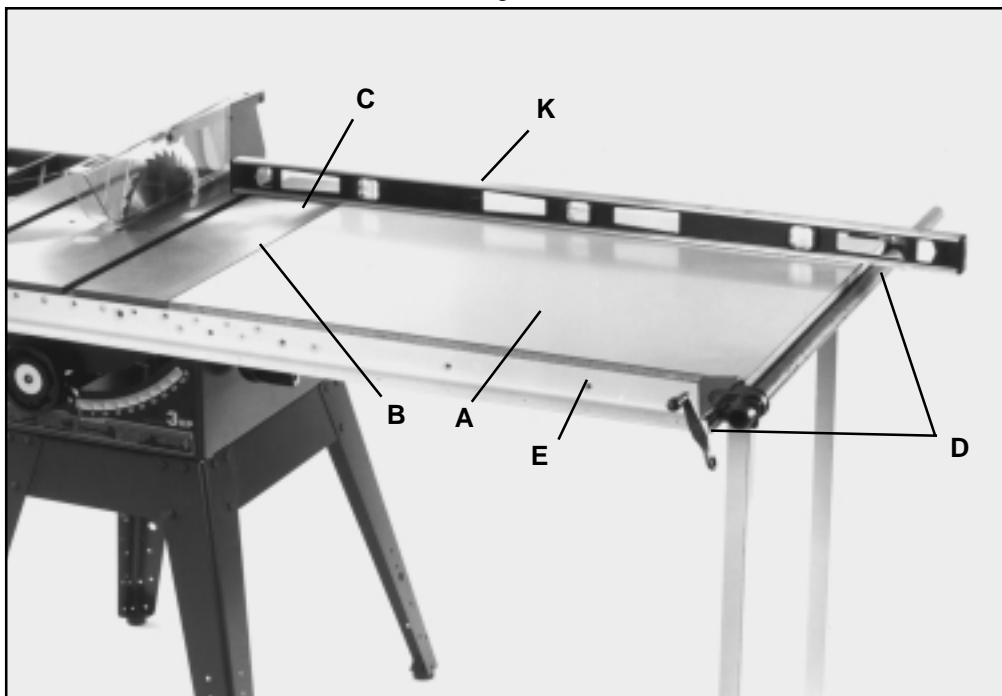


Fig. 21

2. After the holes have been drilled in the front and rear edges on the extension table, fasten both front and rear rail to table using the 1-1/2" flat head Phillips screws (G) Fig. 22, 1-1/4" O.D. flat washers (H) and hex nuts (J) supplied.

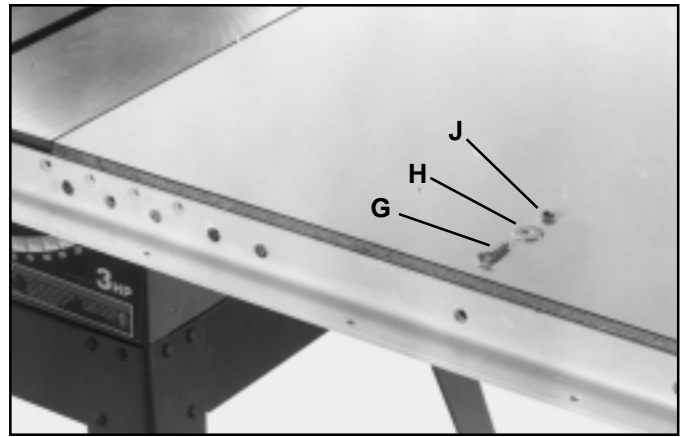


Fig. 22

ASSEMBLING GUIDE TUBE TO FRONT RAIL

FOR ALL SAWS

1. Lay the guide tube (D) Fig. 23, on saw table as shown, and line up the threaded holes (M) on bottom of guide tube (D) with the through holes (N) on the front rail (C). **IMPORTANT:** If a switch adapter is being used for Delta 10" Contractor's Saws to mount switch to rail and guide tube, holes (L) are used to mount the Contractor's Saw switch adapter. On saws other than Delta Contractor's Saws, a special bracket must be constructed to permit mounting the switch to the bottom of the front rail.

2. Lay the guide tube (D) Figs. 23 and 24, on the front rail and fasten the guide tube to the rail using the 1/2" long hex head screws and lockwashers in all holes except the ones used to fasten the switch adapter, If applicable.

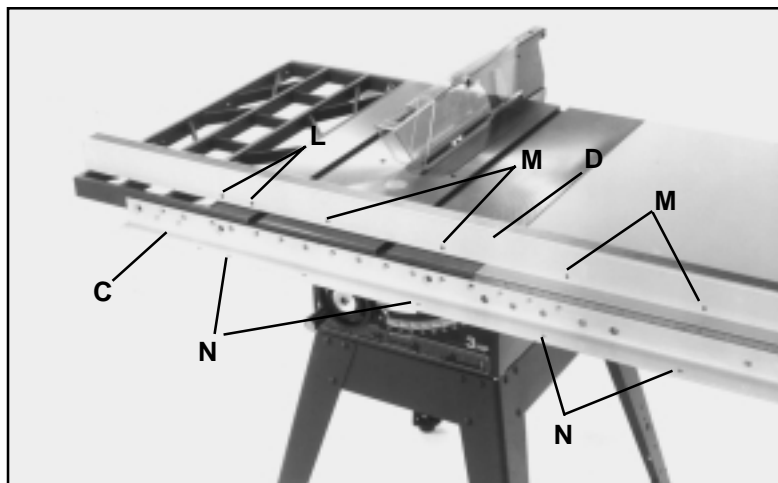


Fig. 23

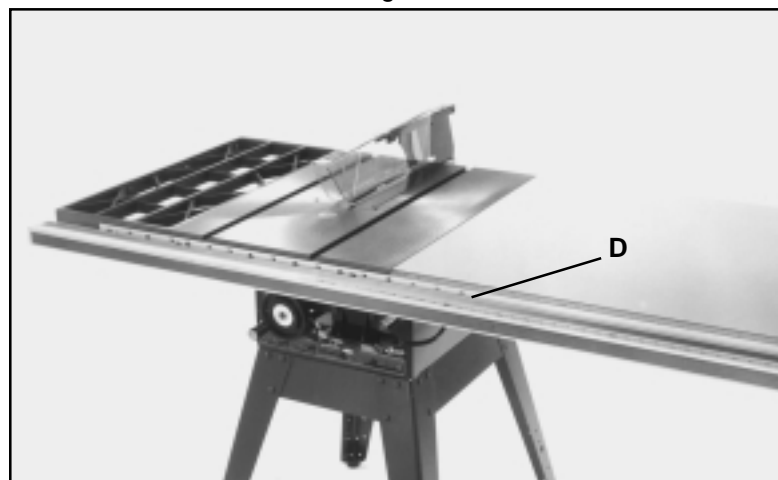


Fig. 24

**FOR OLDER DELTA 10" CONTRACTOR'S SAWS AND
10" CONTRACTOR'S II SAWS ONLY**

3. Assemble the Contractor's Saws or Contractor's Saw II switch bracket (R) Fig. 25, to bottom of the front rail after the guide tube is placed on rail using the two 3/4" long hex head screws (S) and lockwashers. The screws (S) go through the two holes in the switch bracket (R), through the two holes in front rail and are threaded into the threaded holes in bottom of guide tube.

4. The switch (O) Fig. 25, will then be assembled to the switch bracket (R) as shown using the 1" long hex head screw (P), flat washer and hex nut supplied.

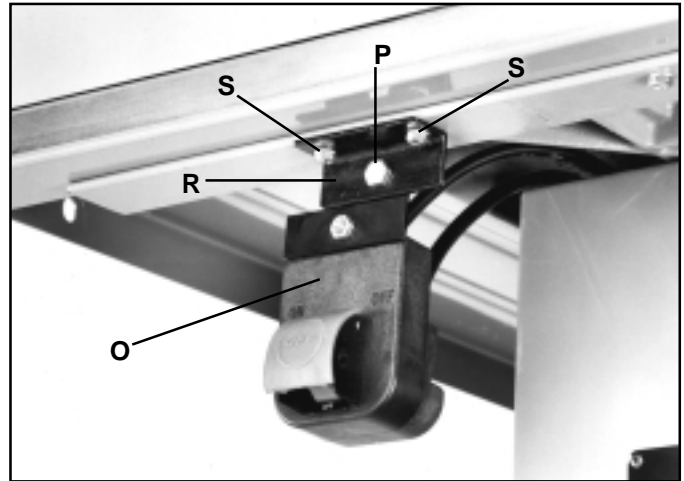


Fig. 25

5. **WARNING:** If there is not enough cord when repositioning the switch, simply cut the cable strap holding the cord. After the switch is repositioned, make certain that the cord does not come in contact with the saw blade at any angles from 90 to 45 degrees, and use the cable strap supplied with the fence to hold the cord in position.

FENCE OPERATION

IMPORTANT: Before operating fence, make sure the fence is adjusted parallel to the miter gage slot, as explained later on in this manual.

1. To move the fence along the guide rail, simply lift up clamp lever (A) as shown in Fig. 26, slide fence to desired position on guide, and push down on clamp lever (A) as shown in Fig. 27, to lock fence in position. **NOTE:** A magnet (B) Fig. 27, is provided to hold clamp handle (A) in the up position when moving the fence.



Fig. 26

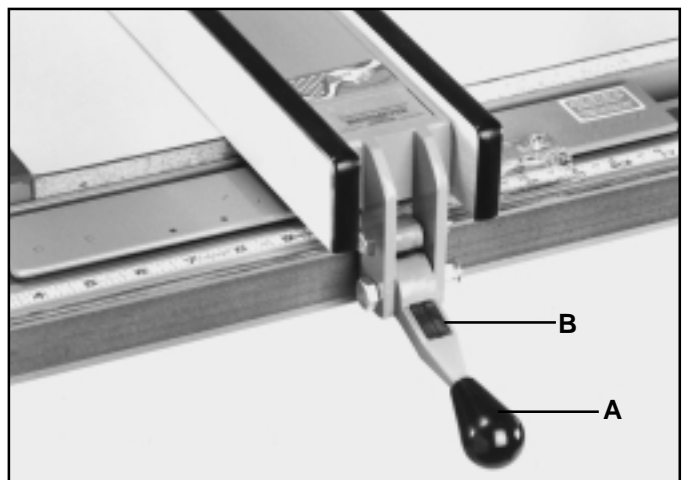


Fig. 27

2. The distance the fence is positioned away from the blade is indicated by the witness line (C) Fig. 28, located in cursor (D). If it is necessary to adjust the cursor (D), make a test cut with the fence locked in position. Measure the width of the finished cut and adjust the cursor (D) by loosening the two screws (E), adjusting the cursor (D) until the witness line (C) is aligned with the same marking on the scale as the finished cut. Then tighten the two screws (E).

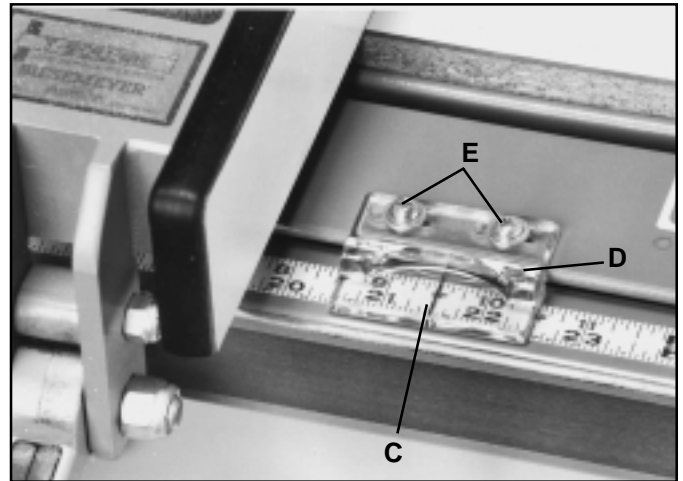


Fig. 28

ADJUSTING FENCE PARALLEL TO MITER GAGE SLOTS

IMPORTANT: Check to make certain that the miter gage slots in the saw table are parallel with the saw blade before adjusting the fence parallel to the miter gage slots as follows:

The fence (A) Fig. 29, must be adjusted so it is parallel to the miter gage slots (B). To check and adjust, move fence (A) until the bottom edge of the fence is in line with the edge of one of the miter gage slots as shown, and push down on the fence clamping lever (C). Check to see if the fence (A) is parallel to the miter gage slot the entire length of the table. If an adjustment must be made, lift up fence locking lever (C) and raise the fence up off the guide tube, as shown in Fig. 30. Slightly tighten or loosen one of the two adjusting screws (D) or (E) Fig. 30, using a 3/16" allen wrench (F), not supplied. Replace the fence on the guide tube and check again to see if the edge of the fence is parallel with the miter gage slot the entire length of the slot. Repeat this adjustment until you are sure the fence is parallel with the miter gage slot. **IMPORTANT: VERY LITTLE MOVEMENT OF THE SCREWS (D) AND (E) FIG. 30, IS NECESSARY TO ADJUST THE FENCE PARALLEL WITH THE MITER GAGE SLOT.**

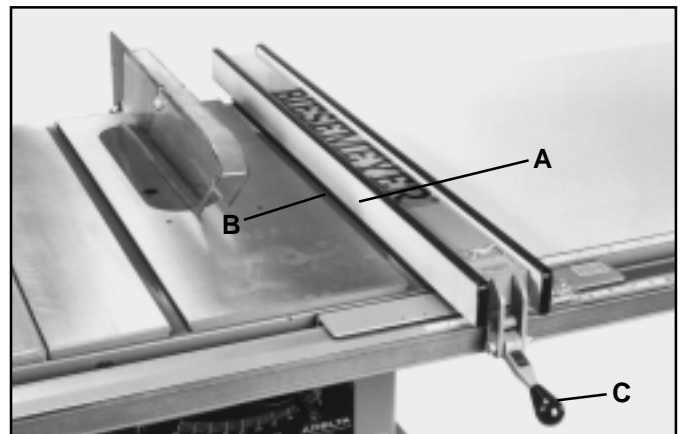


Fig. 29

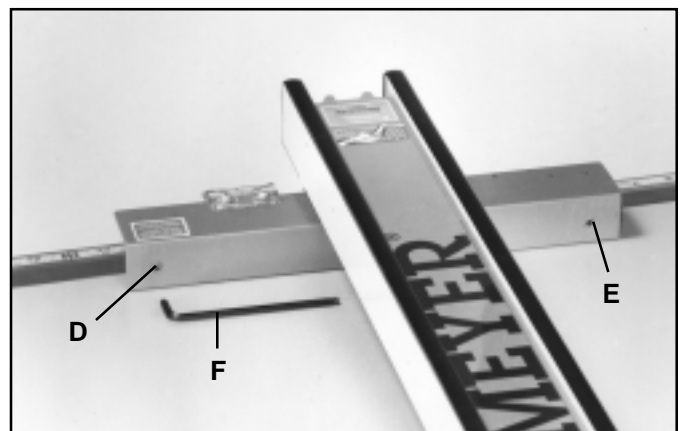


Fig. 30

ADJUSTING CLAMPING ACTION OF FENCE LOCKING HANDLE

When the fence locking handle (A) is pushed to the down position, as shown in Fig. 31, the fence assembly (B) should be completely clamped to the guide tube (C). If the fence assembly (B) is not completely clamped to the guide tube (C) when the handle (A) is pushed down, as shown in Fig. 31, lift up handle (A) and raise fence assembly (B) up off the guide tube (C). Slightly tighten the two adjusting screws (D) and (E) Fig. 32, using the 3/16" allen wrench (F), not supplied. **Screws (D) and (E) Fig. 32, should be tightened an equal amount.** Replace fence onto the guide tube and re-check to see if the fence assembly (B) Fig. 31, is completely tightened to the guide tube (C) with the locking handle (A) pushed down. Adjust further if necessary. **IMPORTANT: AFTER ADJUSTING THE CLAMPING ACTION OF THE FENCE LOCKING HANDLE, CHECK TO SEE IF THE FENCE IS PARALLEL TO THE MITER GAGE SLOT AND ADJUST IF NECESSARY.**

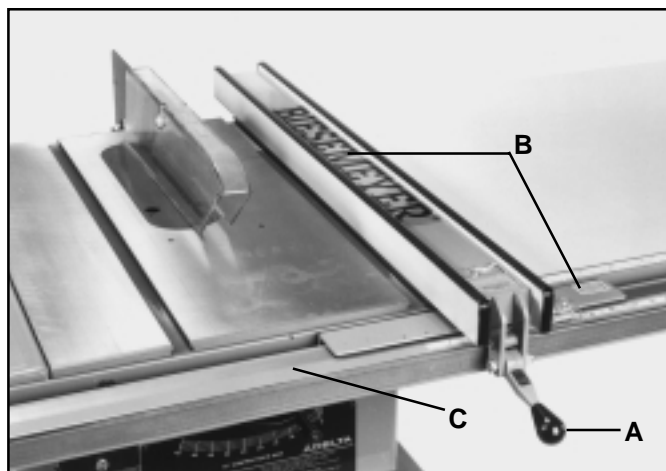


Fig. 31

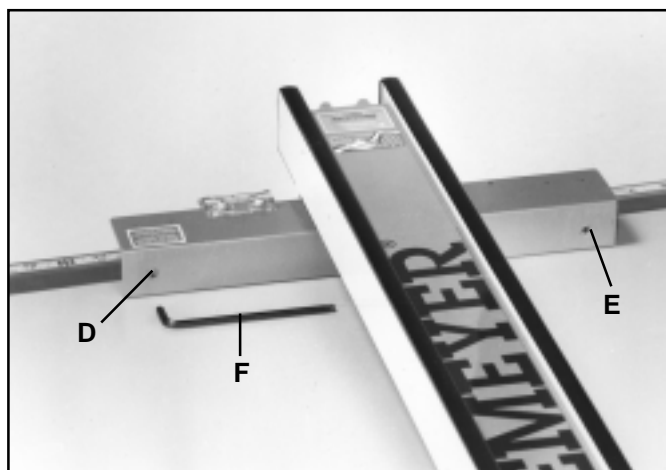


Fig. 32

LUBRICATION

1. Apply paste wax to the fence and guide tube sliding surfaces weekly. Also, saw table and extension table surfaces should be waxed often.
2. Apply grease to cam lock (A) Fig. 33, and camfoot (B) occasionally to prevent wear.

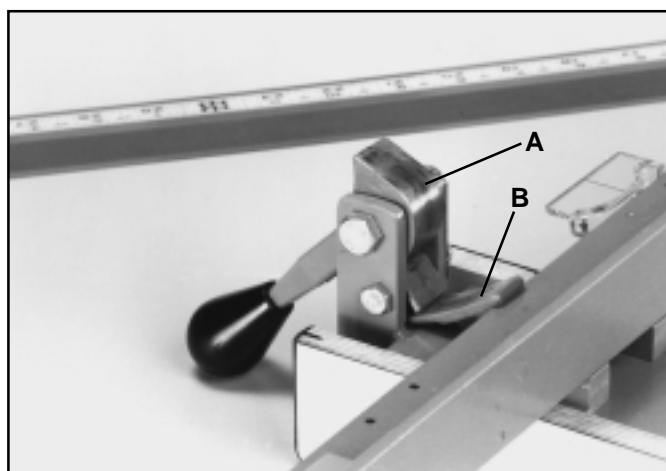


Fig. 33

PARTS, SERVICE, OR WARRANTY ASSISTANCE

To obtain additional information regarding this product or to obtain parts, service or warranty assistance, please fax or call the following toll free number. Highly qualified and experienced Customer Service Representatives are standing by to assist you in weekdays from 7:30 AM to 4:00 PM Mountain Standard Time.

Biesemeyer®

216 S Alma School Rd, Ste. 3

Mesa, AZ 85210

Phone

(480) 835-9300

Toll Free

(800) 782-1831

Fax

(480) 834-8515



Two Year Limited Warranty

Delta Machinery

Delta will repair or replace, at its expense and at its option, any Delta machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer notifies his supplying distributor of the alleged defect within two years from the date of delivery to him, of the product and provides Delta Machinery with reasonable opportunity to verify the defect by inspection. Delta Machinery may require that electrical motors be returned prepaid to the supplying distributor or authorized service center for inspection and repair or replacement. Delta machinery will not be responsible for any asserted defect which has resulted from misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta Machinery be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customers exclusive remedy, with respect to defective products; all other warranties, expressed or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.